International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531
(Print & Online)

http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

Gender Analisis in the Management of Rice, Corn, and Soybean Farming in Banten Province

Asih Mulyaningsih[a]*, Aida Vitayala S Hubeis[b], Dwi Sadono[c], Djoko Susanto[d]

[a]*Departement of Agribusiness Faculty of Agriculture of Sultan Ageng Tirtayasa University, Jl. Raya Jakarta Km 04, Pakupatan Serang 42118, Indonesia*

[b,c,d]*Departement of Communication Science and Community Development, Faculty of Human Ecology, Bogor Agricultural University, Jl. Kamper Kampus IPB Bogor 16680, Indonesia*

[a]*Email: asihmulya@ymail.com*

[b]*Email: aidavitayala@yahoo.com*

[c]*Email: d_sadono@yahoo.com*

[d]*Email: joko.gizi@gmail.com*

Abstract

The agricultural sector has an important role in development. The existence of a community culture that places women with a particular perspective leads to gender biased in farming activities. The purpose of this research is to analyze the pattern of division of labor and gender relation and the gender gap in Rice, Corn, and Soybean (Pajale) farming. The research was conducted for three months, starting from April to June 2017. The research location in Pandeglang and Lebak regencies is the center of the Pajale plant in Banten Province. The number of samples in this study was 216 farming families (husband and wife). The data collected were processed using Mann Whitney's inferential statistics because the type of data in this research is ordinal and gender gap analysis using the Gender Disparity Index (IPG). The result of this research is there is the difference of pattern of division of labor and gender relation in farmer of men and women and there is the gender gap between male and female farmer. This situation is caused by patriarchal culture in Banten society is still very strong. Conclusion, appropriate extension strategies are needed to ensure that gender equality in their farming can be achieved.

Keywords: Rice; Corn; Soybean; Gender.

---

* Corresponding author.

1. Introduction

Food security is an effort to realize quality population, which is healthy, active, and productive. Therefore, the fulfillment of good enough food, until the level of individuals must be achieved. Efforts to realize food security are the responsibility of all parties including local government. In order to achieve ideal food security, an appropriate strategy is needed. The general policy direction of agricultural sector development is aimed at efforts to increase productivity, production, and value added of agricultural products to support national food needs as well as to meet the needs of industrial and export raw materials as well as to increase employment opportunities and income of business actors (farmers).

The agricultural sector contributes only ± 30% to Gross Domestic Product (PDRB), but seen from the aspect of labor absorption reaches more than 50%. Therefore, although the contribution of the agricultural sector in the formation of Gross Domestic Product (GDP) is relatively low, the role of this sector is very strategic, in achieving Sustainable Development Goals (SDGs). The goals of sustainable development (SDGs) place the community as the center of development. This means that the community becomes the ultimate goal and as an active participant in development. One of the keys to the successful achievement of SDGs lies in the performance of the agricultural sector.

Development in the agricultural sector requires thematic programs as activities that directly have implications for growth in the agricultural sector, which is contained in the direction of agricultural development policy for the year 2015-2019. Thematic programs related to the agricultural sector include gender mainstreaming (PUG). Gender equality leads to gender equality and justice aspects of men (women and men), taking into account their needs, issues, aspirations, experience, roles, responsibilities, and impacts on all development actors.

The division of labor in agriculture, generally men perform heavy physical tasks such as plowing and harvesting and transporting crops [25]. while women do light work. In the traditional division of labor occupied the man as the head of the household responsible for management and sales. This is due to strong traditional gender roles, male members of rural households have more options than women to work off-farm. In addition to socially constructed culture, from several descriptions and theories, there is also a gender stereotype effect [8,26,24].

Gender relations are the ways in which a culture or society defines the rights, responsibilities, and identities of men and women in their communication relation [5]. Gender relations are the relationship between men and women through a concept that refers to the relation of power and dominance in the structure and life chosen for men and women. The common character of gender relations is male dominance and subordination exist in women and tend not to benefit women [2,19,24]. In these study gender relations in the analysis of the aspects of access, control, and benefits.

Defines gender roles as the role of women or the role of men applied in tangible form according to the accepted and accepted local culture [5]. This definition shows that gender roles in a region will be different from other gender roles according to the characteristics of the region. Although the role of gender in each region is different, it can be classified into several types universally. Suggests three types of gender roles, namely

reproductive roles, productive roles and social roles [7]. The reproductive role is the role that a person undertakes to engage in activities related to the maintenance of human resources and household duties such as preparing food, preparing water, searching for firewood, shopping, maintaining family health, and nurturing and educating children. The productive role is the work that produces goods and services to be consumed and traded. This role takes into account the responsibilities of men and women in their daily activities. Meanwhile, the role of society (social) is a service activity and political participation. The role of community services is often done by women, while the political role is often done by men.

Gender analysis can be well implemented if the understanding of access, control, benefits, and participation can be distinguished. Access is defined as an opportunity to participate, use, or benefit from natural resources. Control refers to the dominance, ownership, and ability to determine how resources are used. For example, women can use the land for cultivation (access) but have no control to sell the land. Benefits are the advantages of using natural resources in economic, social, political, and psychological aspects. While participation is the result of the decision to engage both actively and passively in farming activities.

This research needs to be done to identify problems in the field of agriculture-related to gender as well as find the best solution in overcoming the problem hence needed research about gender relation. Previous studies proved that development programs and development resources were mostly aimed at men [4, 20]. This research will analyze the gender of Pajale farming and identify gender issues in various fields, showing with clear indicators, proving scientifically, as a basis for formulating solutions to the problems facing male farmers and women farmers in Pajale farming. From the gender analysis can finally formulate some important strategies applied in the development of agriculture with the gender perspective. From the formula, the purpose of this research is to analyze the pattern of division of labor and gender relation on rice, corn, and soybean farming and to analyze the gender gap in Pajale farming.

2. Research Methods

Field research was conducted within 3 (three) months, starting from April to June 2017. The research was conducted in Pandeglang and Lebak regency of Banten Province. The location of the study was chosen purposely with the consideration that Pandeglang and Lebak Regency are central areas of rice, corn, and soybean crops in Banten Province. In this study, the samples were 216 farm households (male and female farmers). Data were collected and processed by using Mann Whitney's different test according to the type of data used ordinal data, Mann Whitney's different test was used to measure the difference between the pattern of division of labor and gender relation of male and female peasant [15].

$$U_1 = n_1 \cdot n_2 + \frac{n_{2(n_2+1)}}{2} - \sum R_2$$

$$U_2 = n_1 \cdot n_2 + \frac{n_{1(n_1+1)}}{2} - \sum R_1$$

Hypothesis:

H0: There is no difference in the pattern of division of labor and gender relation on male farmers and female farmers in Pajale farming.

H1: There is a marked difference in the pattern of division of labor and gender relations among male farmers and women farmers in Pajale farming.

To analyze the gender gap using the Gender Disparity Index (IPG). Where one gender drop can be calculated based on the gender parity index. The gender parity index is the ratio of development performance to the female population to the male population as follows:

$$Gender\ Parity\ Index\ = \frac{\text{Achievement of women's performance}}{\text{Performance achievement of men}}$$

If the value of IPG equals 1 then gender equality occurs (S), but if it is less than 1, gender inequality adversely affects women (Dominant Male), and vice versa if the value of IPG is greater than 1, there is gender inequality which is detrimental to the men (Dominant women).

3. Results and Discussion

3.1 Characteristics of farmers

Characteristic is a personal part attached to a person who reflects the behavior in everyday life. According to individual characteristics are formed from biological factors that include the genetic, nervous system and hormonal system and socio-psychological factors in the form of conative components associated with habit and effective [14]. Based on Table 1 it shows that age, formal education, and cosmopolitan show that the very real difference between male and female farmers in the management of Pajale farming. Based on the Mann Whitney test for the age indicator, a U-test score of 0,000 indicates that there is a very significant difference between the age of male farmers and women farmers. The distribution of respondents according to the characteristics of age shows that most of the respondents are in the middle adult category (40-60) years with the total percentage reaching 66.9 percent with the details of 71.3 percent of male farmers and 62.5 percent of female farmers. This explains that generally farmers Rice, Corn, and Soybean both men and women are generally aged around 40 to 60 years. Education is a conscious and systematic effort to achieve a better standard of living. Higher education allows one to be faster and more mature in accepting and implementing a program. The level of education affects the attitude, action, and mindset of farmers in making decisions on innovation. In addition, the level of education owned by a workforce not only can improve the productivity and quality of work done but at the same time accelerate the process of completion of work cultivated. In essence, education serves to develop skills, improve the quality of life and human dignity both individual and social [12].The total percentage reaching 63,7 percent with a details of 57,9 percent of male farmers and 69,4 percent of female farmers. There is a very marked difference in the level of formal education of male and female farmers, that education levels can influence the farmers' response to the existence of technological innovation [17]. This is supported the statement that formal education can provide or increase the ability of farmers in making decisions and solve problems that occur [27].

Table 1: Distribution of rice, corn, and soybean farmers according to the characteristics of farmers

Characteristics	Measurement	Farmers			
		Male N = 216 %	Female N =216 %	Total N = 432 %	*Mann Whitney U-Test*
Age	Early Adult (18-39 year)	15,3	35,6	25,5	
	Mature Adult (40-60 year)	71,3	62,5	66,9	**0,000****
	Late Adult (>60 years)	13,4	1,9	7,6	
Education	Elementary school	57,9	69,4	63,7	
	Junior high school	29,2	23,6	26,4	**0,008****
	Senior high school	10,6	5,6	8,1	
	Bachelor	2,3	1,4	1,9	
Cosmopolitan	Low (1 - 1,49)	0,4	18,1	9,3	
	Medium (1,5- 2,49)	34,3	65,7	50,0	
	High (2,5 - 3,49)	59,3	15,7	37,5	**0,000****
	Very high (3,5- 4)	6,0	0,5	3,2	

* Significant at α=0.05 and ** Significant at α=0.01

Cosmopolitan, in general, can be interpreted as an openness of a person to various sources of information so as to have broad insights and knowledge. Based on the statement can be interpreted that the cosmopolitan farmers are farmers who have relationships with other parties who are outside the community. Cosmopolitan is the degree to which a person is oriented outside his social system [17]. The level of sociopolitical is the openness of farmers to information through their relationship to the various sources of information needed. The degree of social clarity is characterized by the abundance of activities out of the social system (out of the village), interaction with outsiders (social system), contacts with research institutions, information and communication technology both in print and electronic form. The level of sociopolitics studied in the study is the respondent's effort in finding information about Pajale farming, attending extension activities related to Pajale farming, social activities undertaken, activities in accepting new ideas from outsiders, contacting extension officers, community leaders, farmers outside farmer groups, and agricultural services and contact farmers outside farmer groups. In addition, respondents also obtain information through mass media and internet to overcome the problems of farming. Distribution of respondents according to the level of Cosmopolitan (Table 1) shows that most

respondents are in the medium category with a total percentage reaching 50 percent which means more characterize the rather cosmopolitan type. The interaction of farmers both female farmers and male farmers generally solves the problem of Pajale farming to other farmers within a farmer group. If the problem is not solved, farmers usually visit extension workers at the Fisheries and Forestry Extension Agency to discuss the problem. Based on Mann Whitney's different test showed a very real difference between female farmers and male farmers, where male farmers tend to have higher levels of cosmopolitan (59.3 percent) than female farmers in the medium category (65.7 percent). This suggests a difference in the level of Cosmopolitan on male farmers and women farmers. Generally, male farmers are more actively interacting and seeking information about Pajale farming than female farmers.

3.2 Pattern of Division of Labor

Farmers' activities in their lives consist of productive, reproductive, and social activities. This activity can be identified to determine the living conditions of male farmers and women farmers in Pajale's cultivation. Generally, farmers always need agricultural information such as land preparation, planting, maintenance, fertilizing, harvesting, and marketing. Productive activities of Pajale farmers, both female and male farmers, did not differ significantly based on the value of U-test = 0,310. This is in line with the facts in the field, where both male and female farmers are both engaged in productive activities at Pajale farming such as land preparation, planting, maintenance, fertilization, and harvesting. The implementation of rice farming start the stage of land processing, planting to picking results allows the absorption of male and female labor [11]. Stating that women play a significant role in the application of integrated crop management technology (PTT) of maize, especially in the application of superior varieties, quality seeds, planting population, fertilizer, and plant pest control [16]. Reproduction activities of Pajale farmers are in the medium category with a total percentage reaching 60 percent. However, there is a difference between reproductive activities of male and female farmers. Reproductive activities of female farmers are in very high category (61.1 percent) compared to male farmers in the low category (48.6 percent). This is supported by the fact in the field that women farmers tend to be more reproductive activities such as: choosing and preparing the food menu consumed by the family, cooking daily necessities, cleaning houses and household appliances, raising children, washing clothes, and shopping needs daily. The main factor limiting women in work is the responsibility of the household, especially in child care [9]. Social activities such as cooperation neighborhood and village, attending a wedding party, attending a gathering, following sermon, and visiting the sick neighbor often done by the women. This can be seen in Table 2, where the percentage of women is very high in social activities (55.1 percent) compared to male farmers in the low category (42.6 percent). The results of this study are reinforced argue that the seemingly unbalanced system of division of labor in households is seen from outside the household situation, may be seen fair and balanced by both men and women in the situation, as they receive and adapt to normative expectations for sex-based roles within the household [6]. Stated that the outpouring of women's working time both as farmers and farm laborers is greater than that of men [3]. Added that the pattern of division of labor in some countries is often related to socio-cultural beliefs and constructions within the community and this is also true in rural and farmer communities, for example, women working as farmers cannot obtain seeds, credits or extension services agricultural information because women are not the head of the family [24]. Nevertheless, in many developing countries, in the pattern of division of labor women, farmers have a large contribution in agriculture and the

economy of their families and households. In addition women, farmers also still have indirect productive activities such as cooking, cleaning houses, picking up firewood, and taking water. There is a difference in the pattern of division of labor based on, where reproductive work is more dominated by women and productive work is more dominated by men [6,23,13]. For this reason, states it is imperative to improve the capability of agricultural methods and the exposure of agricultural information to women farmers [24].

Table 2: Distribution of rice, corn, and soybean farmers based on the pattern of division of labor

Pattern of division of labor	Measurement	Farmers Male N = 216 %	Female N =216 %	Total N = 432 %	*Mann Whitney U-Test*
Produktive	Low	0	0,5	0,2	
	Medium	9,7	11,6	10,6	
	High	64,8	55,1	60,0	0,310
	Very high	25,5	32,9	29,2	
Reproductive	Low	48,6	3,7	26,2	
	Medium	24,5	6,5	15,5	0,000**
	High	12,5	28,7	20,6	
	Very high	14,4	61,1	37,7	
Social	Low	42,6	3,2	22,9	
	Medium	21,3	9,3	15,3	
	High	22,2	32,4	27,3	0,000**
	Very high	13,9	55,1	34,5	

Note : 1) * Significant at α=0.05 and ** Significant at α=0.01

2) Average score Low (1-1,49); Medium (1,5-2,49); High (2,5-2,49); Very high (3,5-4)

Community involvement in the decision-making of government-funded food security projects is essential [1]. For that, the role of both male and female farmers in Pajale farming put forward gender equality. The role of women in rice farming is very dominant at the stage of planting, weeding, and harvesting [22]. According to The pattern of division of labor is usually based on money-making activities, maintaining and caring for family, social association, religious, ritual, party, and political activities related to decision making [19]. Generally, the division of labor in rural women is more so that they do not have time to talk about things outside their routines, such as access to information through newspapers, listening to lectures or attending community meetings.

3.3 Gender Relation

Gender relations have started from home, can occur anywhere in the world of work, even in the market, so far there is a social interaction between men and women [24]. Gender relationships will be related to the relationships or relationships between individuals and their communities which will also vary in terms of gender, age, education, and experience. Often in a community, this kind of thing is accepted and believed to be natural. But it is actually socially constructed and can change all the time. Gender relations are related to power relations based on hierarchy. Often in a community, this kind of thing is accepted and believed to be natural. But it is actually socially constructed and can change all the time. In the relationship or relationship between men and women related to agricultural development is expected equality and justice. Research shows gender relations on access profiles from resource aspects and activity stages. The resource aspect consists of physical or material resources, such as agricultural land, tools, and agricultural machinery (tractors), agricultural credits, agricultural cultivation information, and farmer groups. The stages of activities such as planting seeds, land processing, fertilizing, weeding, and harvesting. The results showed that the access of male and female farmers in the management of Pajale farming was moderate with a total percentage reaching 48,8 percent where there was a difference of access between male farmers and female farmers where male farmers had high access in Pajale farming (69, 4 percent) while female farmers were in moderate farming (45.8 percent).

Table 3: Distribution of rice, corn, and soybean farmers based on gender relations

Gender relation	Measurement	Farmers Male N = 216 %	Female N =216 %	Total N = 432 %	*Mann Whitney U-Test*
Access	Low	3,7	23,1	13,4	
	Medium	10,2	45,8	28,0	
	High	69,4	28,2	48,8	0,000**
	Very high	16,7	2,8	9,7	
Control	Low	0,5	19,4	10,0	
	Medium	17,6	61,1	39,4	
	High	75,5	18,1	46,8	0,000**
	Very high	6,5	1,4	3,9	
Benefits	Low	1,4	14,4	7,9	
	Medium	28,2	55,6	41,9	
	High	51,9	30,1	41,0	0,000**
	Very high	18,5	0	9,3	

Note : 1) * Significant at α=0.05 and ** Significant at α=0.01

2) Average score Low (1-1,49); Medium (1,5-2,49); High (2,5-2,49); Very high (3,5-4)

Control or decision making in Pajale farming is still predominantly male farmer than a female farmer, from resource aspect and activity stage. Aspects of resources such as finance to cultivate farming, labor (farm labor),

counseling, fulfillment of family needs, and timing of harvest. The activity stage consists of: determining the type of seed varieties used, the harvest being sold to whom, the determination of the number of harvests sold, the determination of the dosage of the fertilizer used, and the control of plant pests. Based on Mann Whitney test results there is a very real difference between male and female farmers from the control aspect, where the a total percentage reaching 46,8 percent. Where there is a difference of control between male farmers and female farmers. Male farmers are in the high category (75.5 percent) while the female peasants' control in Pajale farming is in the medium category (61.6 percent). Based on Table 3 it is known that Pajale farmers are in the medium category with a total percentage reaching 41,9 percent in utilizing Pajale farming. However, there are differences in enjoying the benefits of Pajale farming. Most male farmers enjoy the benefit of being in the high category of 51.9 percent and female farmers who enjoy the benefits of being in the medium category (55.6 percent). The farmers' benefit to Pajale farming is to utilize the agricultural land, utilize irrigation channels, utilize the results of extension activities, utilize the sale of agricultural products, and make use of agricultural technology. Differences in access, control, and benefits derived from Pajale farming between men and women are inseparable from cultural influences between men and women prevailing in Banten society. From a cultural point of view, husbands as heads of households, have the power and most decisive in deciding all policies in family life. Conversely, the position of a wife, in addition, has the nature of obedience to what is determined by the husband. Limited women's access to productive resources, in the form of knowledge and skills to make rural women more marginalized and men tend to be dominant [18]. In fact, the division of labor in Pajale farming between men and women shows the stereotypical stereotype of the very clear roles. Activities that rely on physical strength are carried out by men and relatively light work or that require careful conduct by women.

3.4 Gender Parity

The gender gap is quantitatively represented in the figures of the Gender Parity Index (IPG). The gender parity index of Pajale farming can be seen in Table 4. The pattern of gender relations in access to resources shows that the dominance of male farmers in all farming activities. Women farmers only dominate in seedling and maintenance activities. In this activity, women are more dominant than men. This means that women have greater access. It is understandable that because it has become a culture in the local area that the planting and maintenance of Pajale farming are done by women.

Agricultural land processing is dominated by men only, as well as for weeding and fertilization involving male labor. This situation is based on an understanding of a more powerful male workforce, so it is appropriate for the need to hoe or operate a tractor. Which states that women have less access to men in agriculture, especially in land tenure assets, and in non-agricultural areas women also have less access than men, such as property resources, as well as cash to acquire goods or services [10]. Women farmers are not always present in village meetings with husbands, but the effect remains attached to her husband because it is often women who want to try to practice new ways if there is information about new seeds [21]. This fact shows that women farmers should not be forgotten especially in the case of agricultural information exposure. This means that the information needs of women farmers should also receive attention because their contribution to the family economy through activities on agricultural land proved very large.

Table 4: Gender gap in access to resources and stages of rice, corn and soybean farming activities

Resources and stages of rice, corn and soybean farming activities	Access		Gender Parity Index	
	Male (%)	Female (%)	Value IPG	Explanation
Resources				
1. Agricultural land	78,70	69,91	0,89	DL
2. Using a tractor	70,37	66,67	0,96	DL
3. Credit agricultural	76,39	74,54	0,98	DL
4. Farming information	59,72	44,44	0,74	DL
5. Farmers group managers	72,69	67,13	0,92	DL
Stages of activity				
1. Planting seeds	75,46	91,20	1,21	DP
2. Land cultivation	93,52	70,83	0,76	DL
3. Fertilization	70,83	67,13	0,95	DL
4. Maintenance	67,13	91,20	1,36	DP
5. Harvesting	94,40	92,59	0,98	DL

Note: DL = Dominant Male and DP = Dominant Female

In order to achieve gender equality, there are three main forms of policy direction needed: improving the role of men in planting seeds and maintenance and increasing the role of women in agricultural land cultivation, tractor use, agricultural credit, farming information, farmer groups, land cultivation, and fertilization. Nevertheless, the increasing role of women at this stage should not cause their workload and time-outs to become larger, leading to a double burden. In this case, it is necessary to conduct counseling and training of men and women, so that men, in this case, will increasingly know that as head of household also do domestic work of the household. If this is understood by men then the outpouring of women's time in domestic activities will decrease and can be channeled into productive activities. Thus the double burden of a wife during this time will gradually be reduced and even lost and eventually can be realized justice and equality gander at the farm household level.

Table 5, it can be seen that the pattern of gender relations on the aspects of control at the stage of activity is dominated by men. In the aspect of control of financial management and use of agricultural products dominated by women. This can be understood because it has become a culture of society, especially in rural research areas in Pandeglang and Lebak regencies, generally income from the sale of farming activities entirely submitted to women (wife), because women are seen as people who are better able to manage finances especially family finances, ie to be temporarily stored before reuse for farming activities as well as family savings after for productive purposes farming or using it in accordance with family needs

Resource control and activity stages are generally dominated by male farmers such as: determining the number of farm workers involved in planting and harvesting, attendance at counseling, timing of harvests, types of

varieties used, to whom the agricultural produce is sold, the amount of crops sold, amount and dosage of fertilizer used, and control of Plant Disturbing Organisms (OPT). In general, in the field, it was found that in the management of Pajale farming, the role of male farmers was more dominant. The husband who was conditioned as the head of the family and supported by a strongly patriarchal culture in Banten society caused his wife fully to help her husband. This is a condition that supports the domination of control of husband to wife in Pajale farming activities. For control activities of financial management and use of agricultural products dominated by women farmers. The results of this study are in line with the research which states for the activities associated with the storage of money from the sale of crops, women have dominant control [4]. This is because the wife is trusted to hold and save money and can manage the household finances well.

Table 5: Gender gap in control to resources and stages of rice, corn and soybean farming activities

Resources and stages of rice, corn and soybean farming activities	Control		Gender Parity Index	
	Male (%)	Female (%)	Value IPG	Explanation
Resources				
1. Financial management	40,74	75,46	1,85	DP
2. Farm laborers	78,24	66,67	0,85	DL
3. Present at counseling	64,35	63,89	0,99	DL
4. Using agricultural products	65,74	80,09	1,22	DP
5. Harvest time	82,41	72,22	0,87	DL
Stages of activity				
1. Type of variety	75,93	68,98	0,91	DL
2. Selling agricultural products	67,59	63,89	0,95	DL
3. The quantity sold	69,44	59,72	0,86	DL
4. Dose of fertilizer	70,37	47,69	0,68	DL
5. Plant disturbing organisms	59,26	58,80	0,99	DL

Note: DL = Dominant Male and DP = Dominant Female

The Gender Parity Index (IPG) score shows the gender relations pattern in Pajale farming on the control aspect of resource and activity stage in male dominance.

To improve the pattern of gender relations in Pajale farming by increasing the role of women in controlling aspects of resources and on farming activities. In male farmers, what needs to be improved is the aspect of financial management and the use of agricultural products, whereas for women farmers that need to be improved is the involvement of women in determining the number of farmers involved in planting and harvesting, the presence of extension, the timing of the harvest, the types of varieties used, to which the agricultural produce is sold, the amount of harvested product sold, the amount and dosage of the fertilizer used, and the control of the Plant Disturbing Organism.

Table 6: Gender gap on resource utilization and the stages of rice, corn, and soybean farming activities

Utilizing rice, corn, and soybean farming	Benefits		Gender Parity Index	
	Male (%)	Female (%)	Value IPG	Explanation
1. Agricultural land	78,24	75,46	0,96	DL
2. Irrigation channels	93,52	70,83	0,76	DL
3. extension results	70,83	67,13	0,95	DL
4. Farm yield	67,13	91,20	1,36	DP
5. Agricultural technology	94,4	92,59	0,98	DL

Note: DL = Dominant Male and DP = Dominant Female

Table 6, it can be seen that the pattern of gender relations in the aspects of benefits is dominated by men except the results of farming. This is because of the sale of farming activities entirely submitted to women (wives) so that the results of farming Pajale fully managed and utilized by women for the life of his family. In general, the utilization of Pajale farming is dominated by male farmers. The IPG score shows the gender relationship pattern in Pajale farming on the benefit aspect of male dominance (Table 6). To improve the pattern of relations at Pajale farming by increasing the role of women in the aspects of agricultural land use, irrigation channel utilization, utilization of information outreach, and farming technology. In male farmers that need to be improved is the result of farming. Indicators that have IPG scores need to be improved so as to create gender equality for male farmers and women farmers.

In order to improve the access, control, and benefits aspects of Pajale farming in order to achieve gender equality, external intervention (government) interventions are required based on the gender relationship pattern designated by IPG values. In the IPG scores that include the dominant classification of men (DL), the necessary policy is to increase women's role in access, control, and benefits aspects. Broadly speaking, there are two necessary policy directions: increase access, control, and benefits to women farmers on farmland, using tractors, agricultural credit, farming information, farmer group management, land management, fertilization, harvesting, , present at counseling, harvest time, types of planted varieties, selling of agricultural produce, number of crops sold, doses of fertilizer used, control of plant disturbing organisms utilizing agricultural land, irrigation channels, extension results, and agricultural technology. While the role of men who need to be improved on aspects of planting seeds, plant maintenance, utilization of farming products, financial management, and the use of agricultural products.

4. Conclusions and Recommendations

There is a difference in the pattern of female and male farmers' division of labor, wherein reproductive and social activities, female farmers are higher than male farmers and in the productive activities of male farmers are

in a higher category than female farmers. There are differences in gender relations seen from the aspects of access, control, and benefits in the management of Pajale Ashtiani, male farmers are higher than men. Meanwhile, based on Gender Disparity Index, male farmers are more dominant than female farmers, meaning that gender inequalities are detrimental to women in farming activities, this is because patriarchy culture in Banten society is still very strong.

References

[1] Auma OC, Mulonji M. 2017. Role of Community Participation in Sustainability of Government Funded Food Security Projects, Case Study of Njaa Marufuku Kenya Msambweni Sub Country. International Journal of Sciences Basic and Applied Research. vol 32(2), pp. 293-307. Available: http://gssrr.org/index.php?journal=JournalOfBasicAndApplied. [Oktober, 30, 2017].

[2] Baden S, Reeves H. Gender, and development: concepts and definitions. Sussex: Bridge Inc. 2000.

[3] Bhastoni K, Yuliati Y 2015. Peran wanita tani di atas usia produktif dalam usahatani sayuran organik terhadap pendapatan rumah tangga di Desa Sumberejo Kecamatan Batu. Jurnal Habitat 26 (2), pp. 119-129. Available: http://habitat.ub.ac.id/index.php/habitat/article/view/206. [March,3, 2016].

[4] Hartomo W. Kebijakan sistem usaha tani berkelanjutan perspektif gender di Kabupaten Karanganyar Provinsi Jawa Tengah. Disertasi, IPB Bogor. Indonesia. 2007.

[5] Hubeis AVS. Pemberdayaan Perempuan dari Masa ke Masa. IPB Press Bogor.2010.

[6] Kusumo RAB, Sunarti E, Pranadji DK. 2008. Analisis gender pada keluarga petani padi dan hortikultura di daerah pinggiran perkotaan. Jurnal Kependudukan Padjajaran 10(1): 64-80. Available: http://www.ejournal.unpati.ac.id./kependudukan/article/download/doc6/2439. [Mei, 5, 2016].

[7] Moser CON. Gender Planning and Development: Teori, Practice & Training. Rouliedge. London. 1993.

[8] Mosse JC. Gender dan pembangunan. Yogyakarta: Pustaka Pelajar. 2002.

[9] Pacris TLM, Geges DB. 2015. Factor Affecting Women's Participation in Selected Trade Union Groups in Laguna, Philippines. International Journal of Sciences Basic and Applied Research 24(4) pp. 65-82. Available: http://gssrr.org/index.php?journal=JournalOfBasicAndApplied. [Oktober, 30, 2017].

[10] Perez C, Jones CM, Kristjanson P, Cramer L, Thornton PK, Barahona WFC. How resilient are farming households and communities to a changing climate in Africa A gender-based perspective. Journal. Global Environmental Change. 34 (1): pp. 95–107. Kenya. 2015.

[11] Priyadi U. 2005. Tingkat kesetaraan gender pada usaha tani padi di Kecamatan Mlati Kabupaten

Sleman. Available: www.data.dppm.uii.ac.id. [November, 18, 2016].

[12] Prijono O.S., Pranarka A.M.W. Pemberdayaan: Konsep, Kebijakan dan Implementasi. Jakarta. CSIS.1996.

[13] Puspitasari N, Puspitawati H, Herawati T. 2013. Peran gender, kontribusi ekonomi perempuan, dan kesejahteraan keluarga petani hortikultura. Jurnal Ilmu keluarga dan konsumen 6(1): Available http://journal.ipb.ac.id/index.php/jikk/article/view/7698/5961. [April, 10, 2016]

[14] Rahmat J. Psikologi Komunikasi. Bandung: Remaja Rosdakarya. 2002.

[15] Rianse U, Abdi. Metodologi Penelitian Sosial dan Ekonomi. Bandung (ID): Penerbit Alfabeta. 2008.

[16] Rini EP, Tenaya IMN, Astiti NWS. 2014. Peran wanita tani dalam penerapan teknologi pengelolaan tanaman terpadu (PTT) pada usahatani jagung di Kecamatan Pringgabaya Kabupaten Lombok Timur. Jurnal Manajemen agribisnis 2(1): 76-83 [diunduh 13 Maret 2016]. Available http://ojs.unud.ac.id/index.php/agribisnis/article. [March,13, 2016].

[17] Rogers E M. Diffusion of Innovations. Fifth Edition. London: Free Press. 2003.

[18] Saleh K, Sumardjo, Hubeis AVS, Puspitawati H. 2017. The Effect of Social Capital in Inproving the Capital of Rural Women As Emping Melinjo Cottage Industry Actors in Banten Province, Republik of Indonesia. International Journal of Sciences Basic and Applied Research. 33(1), pp: 300-312. Available: http://gssrr.org/index.php?journal=JournalOfBasicAndApplied. [Oktober, 30, 2017].

[19] Simatauw M, Simanjuntak L, Kuswardono PT. Gender dan pengelolaan sumber daya alam: sebuah panduan analisis. Kupang: Yayasan PIKUL. 2001.

[20] Soenarmo MS. Kesetaraan gender dalam pembangunan perikanan pantai kasus Kabupaten Subang Jawa Barat. Disertasi. IPB Bogor. Indonesia. 2007.

[21] Sugarda TD, Sudarmanto, Sumintaredja S. Penyuluhan Pertanian. Jakarta Yayasan Pengembangan Sinar Tani. 2001.

[22] Sungkawa I. 2014. Kajian keterlibatan perempuan (gender) dalam usahatani padi di kabupaten bandung, subang, dan karawang. Jurnal Comtech 5(2): 860-869 Available: http://www.scholar.google.binus.ac.id. [Juni, 8, 2016]

[23] Taridala SAA, Harianto, Siregar H, Herdinsyah. 2010. Analisis peran gender dalam pencapaian ketahanan pangan rumah tangga petani di Kabupaten Konawe Selatan Provinsi Sulawesi Tenggara. J. Forum pascasarjana 33(4) pp: 263-274 Available: http://download.portalgaruda.org/article.php. [March, 3, 2016]

[24] Tuyizere AP. Gender and development. The role of religion and culture. Kampala: Fountain Publishers Ltd. 2007.

[25] Weiliang S, Eriksson T, Linxiu Z, Yunli B. Off-farm employment and time allocation in on-farm work in rural China from gender perspective. China Economic Review. 41 (1) pp: 34–45. 2016.

[26] Wood JT. Communication, gender and culture. Belmont: Thomson Wadsworth. 2007.

[27] Yunita. ”Strategi Peningkatan Kapasitas Rumahtangga Petani Padi Sawah Lebak menuju Ketahanan Pangan Rumahtangga, Kasus di Kabupaten Ogan Ilir dan Ogan Komering Ilir, Sumatera Selatan”. Disertasi. Bogor. Indonesia. 2011.